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Founded by J. M. Cattell

MAY, 1955

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BIBLIOGRAPHY OF SMALL GROUP RESEARCH*

(from 1900 through 1953)

FRED L. STRODTBECK, *University of Chicago*

A. PAUL HARE, *Harvard University*

In this bibliography we have attempted to list research reports which place a central emphasis on the nature and consequences of face to face interaction in small groups. Although the concept of the "small group" has come into use without uniform definition, the term as it is used here refers to groups which are small enough for each participant to have had at least a potential opportunity to respond directly to the comments of each other participant during the period under consideration. Most particularly, we have tried to include research if the authors are concerned with the direct observation of small natural or laboratory groups, or with the analysis of the effects of small group participation on the individual. However, in some cases the focus of interest is the analysis of reports by individuals of their present or previous relations with others in a small group situation. Articles which refer to the use of small groups primarily as a technique for interviewing, selecting leaders, training, teaching, or promoting better human relations have been omitted. Dissertations and other unpublished materials are not cited, nor have we included research on non-human groups.

The bibliography covers the period from 1900 through 1953 although it also contains a few pre-1900 articles. All relevant articles in the *Psychological Abstracts* from Volume I in 1927 through Volume 18 in 1944 under the index headings of *child*, *group*, *leadership*, and *social* have been considered as well as articles from *all* sections from 1945 through 1953. To correct in part for the lag in the *Psychological Abstracts*, the following journals have also been checked from 1950 through 1953:

Amer. J. Sociol.
Amer. sociol. Rev.
British J. Sociol.

*The preparation of this bibliography was made possible by a grant given by the Behavioral Science Division, Ford Foundation. We are grateful to George Psathas for work on the bibliography in its early stages, Roberta Wells and Joyce E. Goldberg for secretarial assistance, Robert F. Bales for providing facilities and encouragement, and Edgar F. Borgatta for his editorial help. The research was completed while the junior author was a Public Health Service Research Fellow of the National Institute of Mental Health.

Group Psychother.
 Hum. Relat.
 J. abnorm. soc. Psychol.
 J. educ. Res.
 J. educ. Sociol.
 J. soc. Psychol.
 J. soc. Issues
 Marriage fam. Living
 Psychol. Bull.
 Soc. Forces
 Soc. Res.
 Sociol. soc. Res.
 Sociometry

In addition to the above sources, small group articles are included from bibliographies of the following:

Murphy, Murphy and Newcomb, *Experimental social psychology*, (1931, 1937).

Dashiell, Experimental studies of the influence of social situations on the behavior of individual human adults. In Murchison (Ed.), *A handbook of social psychology*, (1935).

Gorlow, Hoch and Telschow, *The nature of nondirective group psychotherapy*, (1952).

Cartwright and Zander, *Group dynamics; Research and Theory*, (1953).

Moreno, *Who shall survive*, (1953).

Roseborough, Experimental studies of small groups, (1953).

Kelley and Thibaut, Homans and Riecken, Gibb, Lippitt and Heyns, Lindzey and Borgatta, Chapters in forthcoming *Handbook of social psychology* edited by Lindzey. (Addison, Wesley Press).

Readers of the first draft of this bibliography have criticized the absence of a topical cross reference. In view of our experience that the content and methods employed in small group inquiries are not reliably reflected in titles (or, in some cases, in abstracts), it was felt that it would be unwise to publish cross reference guides before a higher percentage of the original articles could be personally inspected. Therefore, notwithstanding the inconvenience to casual users, we have elected to publish this bibliography without cross references so that our work to date could be made available.

It is hoped that the present bibliography will encourage the broad restudy of early *small group research*, particularly across disciplinary lines. Sherif and Wilson's recent *Group Relations at the Crossroads* stresses in several places the lack of familiarity on the part of psychologists of the early Chicago studies of gang behavior and the Baldwin-Cooley-Mead

(Dewey, perhaps) tradition. The theoretical contributions of Simmel (1902) and Von Wiese (1924) (later with Becker, 1932) are probably also little known by psychologists. On the other hand, the very inadequate command by sociologists of the early experimental tradition in social psychology is probably equally unfortunate.

Certainly it is our feeling that no thoughtful student who reviews the "together and apart" experiments from Triplett (1898) and Moede (1914) through the rash of replications stimulated by F. H. Allport in the 1920's can deny that an easily applied investigative gimmick sometimes gives rise to uncritical research fads. Whether this historical perspective helps one avoid making a similar error at a later time is difficult to judge. While minor details might be added for this period before 1930, the most convenient reference for the 1920 to 1930 period is Murphy and Murphy (1931) and with Newcomb (1937) *Experimental Social Psychology*. To some extent, tracing the early references leads us to the chains of influence of research in the small group area, but equally important are studies such as Taylor, Puffer and Terman, which though relatively neglected were quite sophisticated, and indicate the early availability of the *research technology* which is today brought to bear in the field.

Some have overlooked Taylor, who in 1903 had completed research in industrial settings which reveal clearly his consciousness of the operation of group norms and the techniques by which they might be, or he thought they might be, circumvented. Puffer in 1905 studied natural groups—boy's gangs—and wrote cogently of the relation of members to leaders in a matrix of situational factors. Terman's study in 1904, apparently neglected by later workers, used a situational test for leaders in children's groups and corroborated results with friendship choices in a strikingly modern manner. If this fine piece of work done early in Terman's career has not been previously recognized, we are pleased to direct attention to it.

Moreno (1923) used interaction diagrams in his early work with the Stegreiftheater and Riddle's (1925) frequently cited study of poker players is a classic instance of an early empirical focus on the interaction process. Johanson (1922); Laird (1923); Hurlock (1924); Briggs (1927); and Leuba (1930) all carried out early investigations of the effects on performance of razzing, praise, and blame which are at least prototypically interactional. Carr (1930) and Reckless (1930) are sociologists who concerned themselves with category systems though with a lesser emphasis on unequivocal reliability than that shown by Goodenough (1928); Thomas

(1929); Newcomb (1929); Berne (1930); and Parten (1932). Bekhterev and Lange (1924) compared individual opinion before and after discussion with group opinion in a research design which is still a standard procedure. The reader will recognize that many of these early students of group interaction have gone on to distinguished careers which reflect the imprint of these early emphases.

Since 1930 the activity devoted to small group investigation has been quantitatively and qualitatively of a different order than for the earlier periods. To illustrate the quantitative growth we present Table 1, a tabula-

TABLE 1
NUMBER OF SEPARATE BIBLIOGRAPHIC REFERENCES TO SMALL GROUP STUDIES
1890 THROUGH 1953

Period	Number of Years	Items	Items per Year
1890-'99	10	5	.5
1900-'09	10	15	1.5
1910-'19	10	13	1.3
1920-'29	10	112	11.2
1930-'39	10	210	21.0
1940-'44	5	156	31.2
1945-'49	5	276	55.2
1950-'53*	4	610	152.5

*Note: Four year period.

tion of the number of small group bibliographic items per year since 1890. Since the growth characteristics of social science is not known, the reader is warned that our findings may not be so unusual when viewed as a sub-trend.

As a service to readers who may wish to test their acquaintance with the small group literature, we have asked nine persons (working in the field and who have contact with different schools of thought) to check the books and articles in our bibliography which they consider important substantive and methodological contributions.¹ Those items in the bibliography which have not been read by any of the judges have been left blank, entries read by

¹The judges were: Robert F. Bales, Kenneth D. Benne, Robert Boguslaw, Merl E. Bonney, Edgar F. Borgatta, A. Paul Hare, Theodore M. Mills, Mary E. Roseborough, and Alvin F. Zander. Many other persons read the original draft of the bibliography and made suggestions, including D. Cartwright, C. Gibb, Helen H. Jennings, and J. L. Moreno. Items added to the bibliography after the judges had checked the first draft were assigned ratings by Borgatta and Hare, but not in cases of top rating. Thus, some recent articles may be expected to receive higher ratings in time.

at least one judge but not rated as important are preceded by one asterisk (*), entries rated as important by one to four judges are preceded by two asterisks (**), and those rated as important by five or more judges by three asterisks (***).

We present below, by year of publication of first editions, the books and articles which have three asterisks. Since there was more consensus on the books than on the articles, the six books which were rated as contributions by seven or more judges are marked with a check (✓) in the list. None of the articles was rated this high. Some of the articles no doubt are rated higher than others which are equally good because they have been reprinted in a well rated compilation and have had wider circulation.

BOOKS AND MONOGRAPHS

Murphy, Murphy,	Experimental social psychology (1st Ed.)	1931
✓ Moreno	Who shall survive (1st Ed.)	1934
Sherif	Psychology of social norms	1936
Barnard	Functions of the executive	1938
Roethlisberger & Dickson	Management and the worker	1939
Chapple	Measuring human relations	1940
✓ Jennings	Leadership and isolation (1st Ed.)	1943
Whyte	Street corner society	1943
✓ Oss	Assessment of men	1948
✓ Bales	Interaction process analysis	1950
Festinger, Schacter, Back	Social pressures in informal groups	1950
✓ Homans	The human group	1950
Simmel	Sociology of Georg Simmel	1950
Guetzkow	Groups, leadership and men	1951
Lewin	Field theory in social science	1951
✓ Cartwright & Zander	Group dynamics	1953

ARTICLES

Lewin	Field theory and experiment in social psychology	1939
Lewin, Lippitt & White	Patterns of aggressive behavior in experimentally created "Social Climates"	1939
Lippitt	The effect of democratic and authoritarian group atmospheres	1940
Lewin	Frontiers in group dynamics	1947
Jenkins	Feedback and group self-evaluation	1948
Deutsch	The effects of cooperation and competition upon group process	1949
Hemphill	Situational factors in leadership	1949
Bavelas	Communication patterns in task oriented groups	1950

Polansky, Lippitt & Redl	Behavioral contagion in groups	1950
Bales & Strodtbeck	Phases in group problem-solving	1951
Kelley	Communication in experimentally created hierarchies	1951
Leavitt	Some effects of certain communication patterns on group performance	1951
Schacter	Deviation, rejection and communication	1951
Zander	Systematic observation of small face-to-face groups	1951
Lippitt, Polansky, & Rosen	The dynamics of power	1952
Hare	Interaction and consensus in different sized groups	1952
Tagiuri	Relational analysis: An extension of sociometric method with emphasis upon social perception	1952
Bales	A theoretical framework for interaction process analysis	1953
Mills	Power relations in three-person groups	1953

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OLD AND NEW TRENDS IN SOCIOMETRY: TURNING POINTS IN SMALL GROUP RESEARCH*

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FORERUNNERS OF SMALL GROUP THEORY AND RESEARCH

Since about the middle of the nineteenth century there have been at least six trends of thought preparing the way for sociometry and small group research: 1) an industrial, 2) a biological, 3) a psychoanalytic, 4) a psychological, 5) an ethical and 6) a sociological trend.

Industrial Trend

It had in Karl Marx one of its theoretical forerunners. He states in *Capital* (1867) "A dozen persons when working together will, in their collective working day of 144 hours, produce far more than 12 isolated men, each working 12 hours, or than one man who works 12 days in succession." It blossomed into a variety of social psychology known particularly through the experiments with "co-working groups" by August Mayer (No. 860, 1903) and William Moede (No. 885, 1914). The encouragement towards such experiments came from socialistic doctrines, a circumstance which has never been pointed out although the chain reaction between the two is obvious.

Biological Trend

It received its incentive from the observation of animal societies made by Espinas (1878), Kropotkin and others which led to the modern experimental social psychology with animals initiated by Schjelderup-Ebbe (1922) in his peck order study of hens. Recent comparative sociometric studies of human and sub-human groups have been fruitful.

Psychoanalytic and Psychological Trends

These proved to be of particular significance. Their initial stages developed in France. Provoked by Mesmer, Bernheim (1884), began with systematic studies of suggestibility. These studies stimulated, on the one hand, the thought of Freud, which later led to a psychoanalytic variety of

* References in this paper included in the "Bibliography of Small Group Research" by Fred Strodbeck and Paul Hare contained in this issue are here indicated by their number.

group psychology, and on the other hand, the thought of Tarde (No. 1246, 1903) and academic psychologists which in their turn led to the experiments of Binet (1900). Binet had already shown his inventive genius in research with inkblots and the measurement of intelligence. It was an additional achievement when he designed suggestion experiments with children. He fastened pictures and objects on white cardboard. After removal of the card the children were asked a number of questions concerning what they had seen. Binet used in each test groups of four pupils and assumed their answers would give him clues as to their degree of suggestibility for each other. These experiments were carried further by Terman (No. 1254, 1904) and were discontinued later for no apparent reason. At least, no consistent chain reaction of follow-up studies developed. Binet and Terman abandoned their early efforts and turned towards lines of research which appeared to them more productive. It can be hypothecated that a scientific leader will abandon a project if he doesn't have the research instruments which are able to result in decisive discoveries. Binet and his followers were individual-attitude centered, as it is reflected in their research theories and experimental designs. The time was not yet ripe, they did not have a vision, not even the precept as to how to approach a group as a group, from inside, and so arrive at a study of its dynamic structure. As supplementary techniques, however, they were destined to be revived two decades later in the vogue of the projection techniques, reinforcing the direct and dynamic studies of the group. The psychoanalytic trend suffered from a similar dilemma. Its preoccupation with individual psychodynamics hindered it from making a step into the "reality" of the group. This "reality" required a new order of thinking and unbiased work with actual groups. Freud (No. 464, 1922) tried to interpret what the dynamics of the group might be in the aloof manner of a philosopher making conclusions by inference, similar to Schopenhauer and Nietzsche's philosophical evaluations of a quarter of a century before Freud of what the psychodynamics of the individual might be. It remained, however, for Freud who worked with actual individuals, to develop the research technique of free association and to arrive at a more adequate theory of psychodynamics than his predecessors. But in the matter of the group Freud showed a limitation strikingly similar to Schopenhauer and Nietzsche's limitation in the matter of evaluation of the individual.

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Ethical Trend

The modern forerunner of this orientation was Sören Kierkegaard (1850) who started with an existential self analysis of a single case, himself. It had a delayed chain reaction in the beginning of our century. A rigorous analysis of "existence" developed, a new evaluation of the "meeting"; its purport as an existential dyad, a new evaluation of the "moment"; instead of being experienced in passivity it became the springboard of decisive action (Moreno, 1918; Martin Buber, 1923; Heidegger, 1927; Albert Schweitzer, 1923; Jaspers, 1925; Sartre, 1939). The significance of the ethical trend rested with the relationship of the "I" to the "Thou", the "Thou" was newly discovered. The "Thou" was for the "I" not only the *patient*, or an *object* for research, or an agent to be manipulated for political or technological aims, a subordinate within a power system, but a person for whom the deepest respect is shown by the "I" within the context of co-existence. In certain writers the "Thou" or Nature in its entirety, was elevated to an object of veneration. This trend of thought which appeared obscure and mystic in its heyday of productivity (1910-1925) is attaining in our time increasing significance for group research and group integration. It provided the indispensable bridge between individual and group dynamics by making the "I and Thou" relationship an ethical axiom, the preamble to what was later called "interpersonal relations". The "inequality" of status in the therapeutic situation, as in psychoanalysis and other forms of psychotherapy, or in the laboratory situation of investigator versus subject, was changed on ethical, religious and tacitly on democratic grounds.

Sociological Trend

This orientation has proved to be the most productive one. It was initiated largely by sociologists, indeed, the very term "small group" has first been used by them as well as the terms and concepts "primary group", "face to face group", "secondary group", "defining the situation", "taking the role". Forerunners of a sociological group theory were Simmel (No. 1171, 1902-1908), C. Cooley (No. 315-17, 1922), G. H. Mead (No. 866, 1934) W. Thomas and F. Znaniecki (1919), S. C. Chapin (No. 2761, 1916), L. von Wiese (1924), E. Burgess (No. 225, 1929), and G. Gurvitch (1932).

The new problems were formulated. They could not be answered ex cathedra by writing up "social system" ad infinitum. Sociology was ready

for a new advance. It required a jump into social reality, not like a distant traveler or casual observer, but working intimately in close proximity with actual concrete groups of every possible variety and in a large number of places, a sociology of the people, by the people and for the people. The question was to enter into life and action and carry along the principles of scientific methodology. This revolutionary role required above all, besides scientific training and specialized skills, a rare quality among social scientists, courage.

Three steps were required: 1) a laboratory for the study of group dynamics, 2) communities in which the novel techniques of living and research could be put into operation, 3) the formulation of a synthesis between group, action and observational methods.

TURNING POINTS IN SMALL GROUP RESEARCH

The Laboratory Approach

A laboratory was necessary for the study of the human group. But what kind of laboratory? The psychological laboratory of Wundt, Weber and Fechner was not qualified for the study of groups engaged in full life action. The experimental laboratories of animal physiology and psychology, whether of Pavlov or of the rat psychologists were also unsuitable for the human group. There was no model to follow. A new model had to be constructed and a new theory of experimental design.

There has been a vehicle in the history of human cultures which has been exclusively dedicated to the "*acting out of the problems of society of the human society in miniature within a setting removed from reality*"—the theatre and the incipient drama. As soon as this vehicle was used for the problems of an experimental sociology it began to be recognized as the sociological laboratory par excellence. The transformation of the theatre into a sociological laboratory where small groups could be studied as if under the microscope—this was the feat of the Viennese Stegreif experiment.

The new theory postulated two things: 1) Change the status of the research subjects and turn them into research partners and social investigators and 2) change the status of the social investigator and turn him into a research subject and participant actor. This is in essence the theoretical revolution which the Stegreif laboratory had to bring about in order to make a central approach to small group research possible. It had to duplicate the so-called experiments of nature in an artificial environment. It

had to arrange for "*experimental productions of group activity in statu nascendi*." Every time such a group of individuals got together they attempted to create a society in miniature or some relevant fragment of it. And because of the fact that they were doing it themselves, starting from the origin of their feelings for each other and assuming the social roles required by the situation on hand, creating the dialogue, the scenes, the sequences and the climaxes—the dynamics of group structure came to life. The vehicle permitted every type of interaction to take place between the participant actors, from the most casual and little structured to the most complex human venture. The interactions were initiated by the participants themselves. If the stimulus came from an outside agent they were adequately motivated. The groups were intimate, face to face, each member acquainted and potentially interacting with every other. The size of the group was a function of the production, averaging from two to twenty individuals. At times the groups were permitted to interact without any apparent purpose, wild and chaotic, so as to see what would come of it. They were all participant creators and actors in the production, in the degree to which they were fit to initiate and create. The productions emerged in statu nascendi, extemporaneously, without prior preparation of the participants. The theme of the participants was usually chosen by the participants and agreed upon, or suggested to them by a director. It was of essence to the production that the things enacted were real and meaningful to the participants. However much we tried to keep the research and experimental aspects of these productions apart it became increasingly clear that in order to obtain significant material, significant for the group which cooperated in a particular production, the subject had to be deeply involved, whether privately because personal problems were directly treated or indirectly touched, or because certain cultural, ethical and political problems had become deeply anchored in the subjects. Without heat or as we called it later, without an existential warm-up of the participant actors, not only the cathartic benefit of the participants would fail to be accomplished, but even more, the research benefits for a material inquiry into the dynamics of group structure would fade out. Two types of experimental production became particularly useful, 1) in which the entire operation from beginning to end was subjectivistically and therapeutically oriented, 2) in which the entire operation was objectivistic and collectively oriented along the lines which had sociological, cultural, religious or other non-personal goals.

The Community Approach

"If (experienced, existential) truth and science could ever be combined, that would produce the ideal communal life; but if truth and science must function separately or in ambivalence, then participating in truth may be more important than in scientific research." These words, which I wrote in my notebook on my first journey from Europe to the United States still express the central problem of our time.

The task of laboratory approach was to create synthetic groups which could become models for real living and with the assistance of psycho-, socio- and axio-drama such models have been explored. In contrast to the laboratory, the task of the sociometric community approach was to enter live communities and to work with them in situ. This was the challenge which Mitterndorf and Hudson offered to the social investigator. The advancement of better human relations was the primary aim. The advancement of scientific research was secondary, a by-product. It is significant that for many crucial situations the very side-tracking of scientific research led to the attainment of pertinent knowledge but when research was made the central focus the results were meager. A human group involved in a self-directed experimental production may expose itself on a deeper level of nakedness and because pushed by the need of solving its problem, show greater inventiveness of useful techniques; thus in the long run it may become more useful for the increase of knowledge about its own dynamics than if the group is approached in a cold laboratory manner, the members being hired subjects. The warm-up to the actual but hidden dynamics of community life is a delicate undertaking. We know that the responses of individuals vary from situations of real stress to situations which are cold at the time of the test. I once addressed an audience of young women, first in a casual academic way by saying: "How do young girls generally act if approached by a strange man in the dark who says, 'May I accompany you on the way home?'" After all the answers were collected I put the same question before them in a slightly modified fashion, but in a direct and personal way, a man approaches *you* in the dark and pleads that he be permitted to accompany you. To the amusement of many the majority answered in both cases that they would accept the invitation. But when the situation was made real, in the full actuality of life itself, the reactions were entirely different. Taking a representative of the majority of the group—there she is all alone on the street, walking home; here comes a strange man who asks her the same question in the same polite manner. Now she suddenly

runs away, trembling with fear, until she reaches home. Now she is at home, hardly an hour later, thinking about the situation from which she ran away. "Oh, what a fool I was", she exclaims, "he looked like the man I always wanted to meet and what an adventure I may have missed."

This is a simple illustration of the dynamics of the warming-up process which are duplicated in certain phases of diagnostic psychodrama. The experimental sociologist has to figure this in his calculations if he does not want to miss the essence of the community which he is trying to explore.

The Observation Approach

In its early stages sociometry worked on two levels. On one hand it prepared a theory of human relations which would make a central research technology for the social sciences possible, on the other hand it invented such techniques which permit the observation and measurement of the ongoing processes. It had, therefore, one eye upon the special existential character of the human group and the other eye upon developing a science of the group which would meet with the rigorous requirements of the experimental method. It was a paradoxical undertaking but it was a task worth trying because no other alternative could be imagined which would meet the test of reality. Thanks to the group methods of sociometry and the action methods of psychodrama the observational approach to group dynamics made a comeback on a level of greater nearness to the subject matter and greater accuracy than heretofore. In the psychodramatic laboratory careful observations and measurements could be made of the processes of interaction taking place in the course of production. The use of time clocks, inter-action diagrams, movement and field diagrams were inaugurated, the process of production could then be analyzed as to units and categories of communication, the degree and duration of the participation of each member of the group. On the community level the action sociogram was supplemented by the observer sociogram which led the way to comparing the behavioral patterns of a group with its actorial patterns.

Categories of observation of interaction and of role playing behavior have been constructed by several investigators, the best known being those by Bales (No. 60, 1947). It would be desirable to construct a set of categories in whose creation the actor-participants have an immediate and direct involvement. This could be brought about by a return to the more naive but also more realistic schemes of observation as they have been used in the Stegreif laboratory. Careful confrontation in future research will then show which one of several models of observational categories is more useful and more productive.

OLD AND NEW TRENDS IN SOCIOMETRY

The sociometric approach has tried successfully to get into the scientific net some fragments of human experience which up to then escaped it. It did this by trying to detect loopholes in the armor of the arts and the religions. It is within this context that the usefulness of the drama and of existential ethics for the social sciences must be seen.

High points of crystallization of thought and organization of the movement occurred between 1923 and 1940. A scientific movement emerges and develops because the cultural climate is ripe for it, because the ideas and methods are formulated, and last but not least, because effective, organizing forces are sent in motion. All these factors operated in tacit conjunction in the shaping of the sociometric movement and the fostering of small group research. The organization of the Viennese Stregreif laboratory in 1923 (and its many successors in the USA) was one force, Gardner Murphy's *Experimental Social Psychology* (1931) and his fatherly, all embracing support and understanding of all the ego- and production-involved talents throughout the decade of 1930 was a second force; this was followed by the appearance of *Who Shall Survive?* (1934). But the high point of crystallization for all concerned was probably the foundation of SOCIOMETRY, *A Journal of Interpersonal Relations* (1937; first published as *Sociometric Review* in 1936), with Gardner Murphy as its first editor. This journal was of crucial importance for the spread of small group research. Between 1936 and 1941 it published seventy-five articles (about 65% of the printed production during that period) dealing with sociometric and near-sociometric small group research. Among the participants in this production were most of the promising talents in this area, in alphabetic order: S. Chapin, L. Cottrell, S. Dodd, M. Hagan, E. Hartley, H. Infield, H. Jennings, J. Kephart, P. Lazarsfeld, K. Lewin, R. Lippitt, C. Loomis, S. Lundberg, J. L. Moreno, T. Newcomb, M. Northway, I. Sanders, M. Sherif, L. Zeleny. They became in small group research the chain leaders of the growing flood of productivity between 1941 and 1953.

Revolutionary Sociometry

Sociometry has been subdivided from the point of view of a system in a dynamic, a diagnostic and a mathematical part. It may be helpful for the reader to look at sociometry also as a historical development ranging over thirty years, from 1923 to 1953, during which period it has had three characteristic observations, 1) the "hot" sociometry (1923-1937), 2) the

"cold" sociometry (1937-1950) and 3) the "perceptual" sociometry (1950-).

The objectives of revolutionary sociometry are: the transformation of an untherapeutic into a therapeutic community by means of sociometric and allied methods; the creation of new therapeutic societies or communities starting from scratch; the giving of psychodramatic sessions, anywhere, in the "open" community, wherever there is a social conflict or a problem crying for solution. Revolutionary sociometry has operated largely with microgroups but they have occasionally tried themselves on macrogroups through the media of mass concentration, radio and television. Some of the therapeutic techniques used are: open consultation of the group with its own sociograms on hand, movement and role diagrams by the entire membership of the group; sociometric reshuffling of groups in order to cure social imbalances of the community; role playing techniques as soliloquy, role reversal, mirror, double and reinforcement techniques which are, among other, of the greatest importance for the deeper types of small group research.

Cold Sociometry

In revolutionary sociometry research was a by-product. In cold sociometry research for its own sake became the central aim. Real and dynamic sociometry was often not applicable to a group, either because of the low sociometric consciousness or the low spontaneity quotient of the members, or its utter indifference to change and progress. The result was that a new orientation gradually took place. The tendency began to gain ground that some sociometry is better than nothing, the idea began to get hold of our conscience and it began to appease us by saying: "People are not ready for it, our leadership skills are not developed enough, or our techniques are not sufficiently articulated. In the meantime let us do research with groups, using sociometric-psychodramatic-role playing techniques, projection-interview-observational techniques, etc., shrewdly playing the game of the experimental method. Let us learn more and more about groups and perhaps some day, even at a Utopian date, the sociometric-therapeutic society will emerge." That kind of talk appealed particularly to the academicians and also to the sociometric revolutionaries who had become tired and old. With my approval and often on my initiative the sociometric test became near- or para-sociometric, then diluted further into sociometric questionnaires, observational and manipulatory sociometrics. Psychodrama or sociodrama dealing with real problems of the group began to be pushed aside and were

replaced by diluted forms of role playing in which the playing at the role was more in the foreground than the role itself. Meticulous and pedantic observations of role behavior began to take the place of the true actings out of social conflicts. This trend, at least as a transitory phase, was subscribed to by me for a good reason: sociometric statisticians had found that there is a significant relationship between real and near-sociometric tests. If a beloved teacher appeared before his students and said: "I am engaged in an important group research. It would help my project if I could have an honest sociogram of this group. Be truthful about your social feelings, the feelings you have for one another." Such an appeal was often a strong criterion and able to solicit cooperation. The responses may have been relatively significant, at least up to the point at which the participants in the project were able to articulate their feelings for each other in a "cold" moment, that is, without adequate motivation and realization of a personal or collective aim (except of course, for the attraction which the teacher exercised on the students, his own emotional expansiveness in relationship to them). The difficulty with sociometric questionnaires is that they cannot be repeated on the same group indefinitely. In order to be applicable to a therapeutic community, the sociometric test has to become a permanent measure, repeatedly applicable to the same group and always bound to reflect the changes in the group structure. Another advantage of the near-sociometric test was that it could be applied by a large number of investigators in the greatest variety of situations, by educators, psychologists, sociologists, anthropologists, psychiatrists; that it could easily be applied in university laboratories which could not afford the unharnessing of revolutionary sociometric tactics, not even the microscopic ones. And thus sociometry began to fertilize group research, and small group research began to flourish everywhere. What seemed to be a set-back, the dilution of sociometric techniques and the avoidance of the more serious but more difficult old forms, became a successful vogue. It resulted at least in a widely dispersed chain reaction, encouraged various modifications, the use of supplementary techniques as projection techniques, and stimulated a revival of other laboratory methods.

Perceptual Sociometry—A New Dimension

Little noticed, a new theory sprang up in 1942, which is spreading in the last few years and promising a new lifeline of sociometric research, *perceptual* sociometry and the *perceptual* sociogram. The idea was simply "the introversion of the sociometric test". A sociometric test need not be carried out in reality. It can be carried out in a person's mind. It is based on the

assumption that an individual has a pretty good idea of his own sociogram and a fair intuitive perception when changes take place within it. The suggestion was made that he had also a pretty good idea of the sociogram of people with whom he lived in proximity or with whom he had an emotional contact, positive or negative. In order to give this technique scientific standing, the question was raised whether there is a significant relation between the results of a real sociometric test and of a sociometric imagination or perception test. The answer of statistical investigations was in the affirmative. If certain individuals showed a weak perception of the other fellow's social feelings toward him, his social perception ability could be improved through training. If a certain individual persistently showed a distorted picture of the social feelings of others toward him and towards each other, such pathological "*auto-* sociograms" might become of importance for his social diagnosis. Social microscopy and microsociology had been an inherent part of sociometric studies from its early days. Here was a way, wide open for a microscopic technique which promised to be of assistance, particularly in the minute analysis of groups of psychotic patients and for the advancement of effective group psychotherapy. (The factor through which this curious phenomenon operated has been frequently described as a two-way empathy or tele, in its pathological or intraverted form as an autotele.)

It has become the custom in many sociometric laboratories to add, routine-wise, after every sociometric test the question: "Now that you have made your choices and rejections in respect to criterion X, how do you expect A, B, C, to respond to you? Do you expect that A, B, C, will choose or reject you? Whom do you expect to choose you, to reject you or to be neutral towards you?" The theory behind this simple technique is rather elaborate. Because of my preoccupation with realistic techniques I pushed it back frequently due to its fantastic nature, but when it returned persistently I began to speculate about it more seriously. One could consider the possibility that we carry a series of universal types of sociograms in our minds which are hereditary sociograms, a few in number, continuously occurring in every culture, the sociograms of the rejected individual, the star, the isolate, the leader, the power individual behind the throne, etc. In the course of years, however, I began to favor another theory which does not exclude the previous one, that we all suffer from a kind of "normal paranoia" which may explain the irrational but cogent way in which tele operates. It would not be the first time that we have learned something significant from psychotic behavior. Paranoia is one of the oldest mental syndromes record-

ed. The word comes from the Greek and means "deranged". In modern literature it is usually defined as delusions or persecution, a distorted evaluation of relationships to things or persons. A paranoid person thinks he knows accurately what the neighbor's wife says to her husband about him and that his neighbor is plotting with his boss to have him fired from his job. That is why the secretary at the plant was so curt with him on the telephone, and why the police chief did not greet him back on the street, and why the Mayor's wife did not invite his wife to the benefit party, etc. Often we listen to such paranoid tales incredulously and with a certain amount of pity. But if such paranoid stories are carefully checked some grain of truth is frequently found in them. It is as if the paranoic individuals have a heightened sensitivity and perception of what other people think about them. I have pushed this technique off my mind, probably because of the tendency of mental science not to take paranoic tales too seriously. But I found it valuable to separate the psychological content of his world from the technique used by him and tried to fit this technique into a scientific framework. The sociometric perception technique starts with the assumption that we are continuously reading other people's minds, especially of those people to whom we are affectionately related or who are affectionately related to us. We have made up to now the error not to pay serious attention to these little, fugitive perceptions, "Oh, that's foolish, I'm getting paranoic". But actually, naive, existential thinking is often of that type. Intellectual people often lose a great deal of insight by repressing it.

The attention which we have given to the paranoic personality can be seen from his frequent appearance in the dramas and novels of all time, in the theatre and in religious mythology. It is the man who knows and sees and hears everything which goes on around him. Parapsychology and mental telepathy are scientific vehicles unconsciously under the spell of the paranoic technique.

This type of paranoia as defined here is a positive and productive thing. Whether it is healthy or unhealthy is beside the point and probably a question which no one can answer unbiassed. It is a form of God-playing and playing God may be an universal intent of Man which often comes forth in the most hideous ways. It is certainly not a coincidence that we have constructed the image of the supreme Godhead as if he would be the greatest paranoic of all, the being who feels, knows, sees, hears and loves everything. It is as if we all try to become paranoics but do not dare, that is to play God. It is a difficult and dangerous game and, because it is often

played poorly, we do not admit that we all try to play it, therefore we try to block and control it.

Once I applied this technique of the paranoic to a banker who came to me for counseling. He was non-cooperative, refused to answer questions, to be interviewed, to be analyzed, or step upon the stage and act out his problem. I did not send him away but said to him: "There is a method by means of which you can help yourself. The method requires that no one is present, no other person and certainly no therapist. You are alone." When he showed interest I began to explain the technique to him. "You make your own sociogram, just as you write your own checks or analyze your bank statement at the end of the month." He immediately grasped the meaning of my suggestion as he was acquainted with sociometric theory. "You start with your family, and later with every other group in which you are playing a significant role. Let's begin with your family sociogram. Here is your wife" (a circle on the cardboard). "How do you feel towards her and how does she feel towards you?" "I am attracted to her" (draws a line towards her from his own triangle). "But how does she feel towards me? As I am trying to be honest with myself I must admit that things have changed recently. I think she is indifferent towards me, indeed, I think she rejects me." (Draws a line of rejection from her towards him.) "Recently she is rarely home, she prefers to spend her time with strangers, at clubs and parties. The only thing she takes from me is money, she squanders it. Of course, she is so much younger than I am. Another person in the house is my daughter," (Draws a circle on the cardboard.) "She is my only confidante" (draws a red line towards her) "and I am hers. Recently she turned down a proposal of marriage. It's on account of me, not to leave me alone." (Draws a red line from daughter towards himself.) "But there is hell in the house, the two women fight over every little thing" (draws black lines between daughter and wife). "Maybe that is the reason why she spends so little time at home; it may be that my wife has a new interest, I am not sure.—Let's go now to my office and draw a picture of my work situation. There is my new Acting Director. He always does things to cross me. I should never have hired him" (draws black lines between the symbol for the Acting Director and himself). "Recently he has taken my young secretary out for luncheons, the only sunshine I had in my office. Her attitude towards me is changed" (draws a red line from himself towards secretary, a line of indifference from her towards himself; then draws mutual red lines between the secretary and Acting Director). Then he looks around,

but there is no one with whom he can speak, he is alone in himself, figuring out his sociometric status. He calculates how he can improve his status and what he can do about his situation. First, in the home, maybe he should not always side with his daughter against his wife. In the office, maybe he should accept his Director's invitation to come to dinner.

From then on, every month he pondered what his sociogram looks like, how it has changed and what he can do himself to improve it. He came to me at three months' intervals for a checkup. It consisted of making a real sociometric inquiry, to compare with him the extent to which his own constructions approximate or deviate from the sociometric reality. To his own great satisfaction, his sociometric perception appeared to become more sensitive to actualities as time went on and with it, the ability to help himself.

Perceptual or Self Psychodrama

Psychodramatic method is able to explore the human mind because its productions are of a psychodramatic nature. "Psychodrama is the essence of the dream". (Lewis Mumford*) A psychosis can be defined in this context as an "*experimental psychodrama of Nature.*" It was plausible to ask oneself the question "If an individual can perceive his own sociogram should not he also be able to visualize his own psychodrama, to act it out within his own chamber, without anyone present, without auxiliary egos and even without the benefit of a therapist, just by himself? I am inclined to answer this in the affirmative, because of certain observations with mental patients. From time to time we have seen a patient in the course of a psychodramatic involvement refusing auxiliary egos and a therapeutic director and acting out scene after scene in a clairvoyant manner, playing all the parts himself, structuring the production with a high degree of cunning, the hallucinatory as well as the social roles—with an implicit sneer: "There is no one who knows these things as well as myself." These patients were usually people who actively or passively have been participants in psychodramatic sessions for a considerable period and had acquired a skill in running sessions themselves according to method. In group discussion it came out that between actual sessions they played entire psychodramas in their own mind. In their solitude they played all the parts, imagined the props, worked through alternative solutions, moving around in their room, acting out, talking, laughing and gesticulating. This explained the progress (or the

* See *The Conduct of Life*, Harcourt Brace & Co., New York, 1951. P. 51.

regress) they made from one session to another. A few experiments have shown this to be a technique requiring careful research as to its diagnostic and therapeutic value. How do these self productions compare with psychodrama within its customary real setting, conducted by a trained therapist with the aid of auxiliary egos? With mental patients in an acute phase these imaginary psychodramas may look very much like the psychotic episodes of their own making. How that can be prevented and whether in an acute psychosis the encouragement of self production does not often hasten rather than slow up the process of dissociation, these are, of course, open questions. But for certain types of patients, especially with near-normal problems and for normal groups, the number of real sessions could be reduced to a minimum. It would make the application of psychodramatic therapy far more universal and economical than it is at present. In the mirroring and solving of simple social problems self psychodrama promises to become a highly sophisticated technique of self therapy.

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ANNOUNCEMENTS

Bibliography of Sociometry (1890-1954)

A comprehensive bibliography of sociometry is now being prepared. Readers are invited to bring to the attention of the editors unknown publications.

New Section on Psychotherapy, American Psychiatric Association

A new section, a Section on Psychotherapy has been organized within the American Psychiatric Association, representing all schools of psychotherapy. Officers: Frieda Fromm-Reichmann, Chairman; Jules H. Masserman, Vice-Chairman; J. L. Moreno, Secretary.

First International Congress on Group Psychotherapy

This Congress will take place in Toronto, at the University, from August 12-20, 1954.

NEW BOOKS RECEIVED

Das Soziogramm

By Dr. E. Höhn and Dr. C. P. Schick, Stuttgart, 1954.

Die Grundlagen der Soziometrie

By J. L. Moreno, Westdeutscher Verlag, Köln, 1954, 386 pp.

Sociology

By George A. Lundberg, Clarence C. Schrag and Otto N. Larsen, Harper & Brothers, New York, 1954. 740 pp.